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Oregon Agricultural College

Experiment Station

Open Air Range House

By

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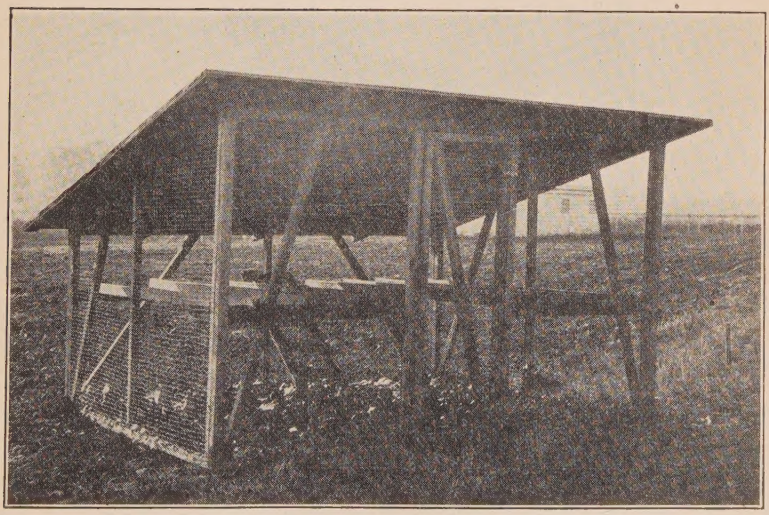
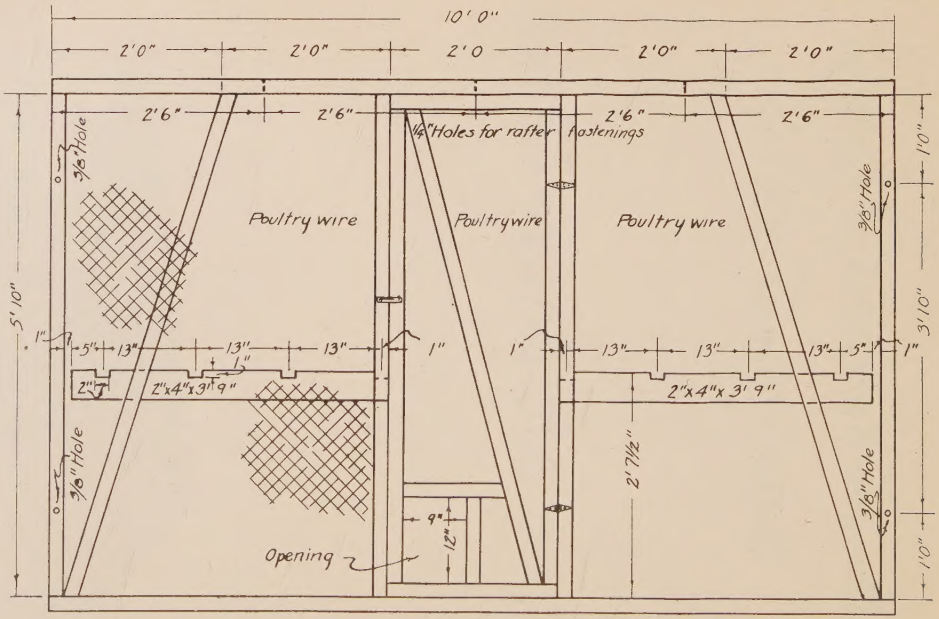
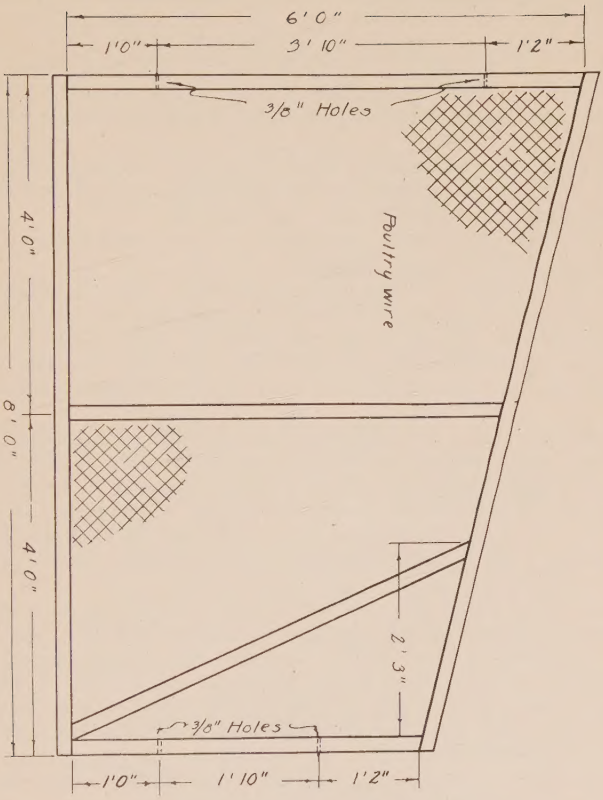


Fig. 1. Open Air Range House.



ELEVATION - FRONT SECTION



Elevation- End Section

Open Air Range House

The greatest undermining factor of the poultry industry is the ever-threatening one of soil contamination. Successful poultry keeping, over a period of years, depends upon the ability of the owner to raise to maturity pullets that are free from disease. No poultry farm is exempt from the troubles caused by such diseases as coccidiosis, intestinal parasites, and paralysis, if the attempt is made to brood and mature large flocks of poultry on the same soil year after year. Intensified commercial poultry farming on small acreage farms is to be discouraged for the simple reason that, after a few years, it is impossible to provide free range conditions on disease-free soil, and without these clean range areas upon which to raise new stock, it is most difficult to mature strong, vigorous pullets.

There is conclusive evidence to show that the confinement of growing chicks to small yards causes a deficiency in green feed and mineral matter, particularly that which comes from the soil.

Flocks that have free range conditions on clean soil are practically free from disease and are more vigorous.

Vigor is the foundation of the poultry business. The portable brooder house is strongly recommended until the chicks are old enough to go without artificial heat. After this age the open air range house is recommended because it provides for an abundance of fresh air and can be moved frequently to new locations, thus avoiding contaminated soil dangers.

This circular presents the building plans and bill of materials of the open air range house which has been found to be very satisfactory by the Oregon Experiment Station. Since a range house is in use less than half of each year, it must be of cheap and simple construction if it is to be practicable. It is also necessary that its design be such as to make it easily movable. The house herein described possesses these characteristics.

The wire sides, which are relatively cheap and simple to construct, provide adequate protection from predatory animals together with excellent ventilation, which is particularly important for growing stock during the warm months when a range house would be most used. Under certain circumstances—when stock is first placed in the house, or if it is kept in until rather late in the fall—additional protection may be advisable. This may easily be secured by tacking building paper or gunny sacks over the wire on the most exposed sides of the house. At least one side, however, should always be left uncovered.

In order to facilitate moving, the house is so made that it can be taken apart; in other words, it is of the knock-down type. The front, ends, and back are constructed as separate pieces. When the house is set up these pieces are secured to each other by bolts. The end plates serve also as rafters. The three central rafters are held in place by spikes fitted into the proper sized holes and are therefore removable. The roof, which is made in two sections for convenience in handling, is merely laid on the rafters. Hooks screwed into the end plates can be made to hold the roof absolutely secure in cases where it is feared there would be sufficient wind to displace it. The perches are merely fitted into notches in their supports and are, therefore, easily removable.

The house provides 64 lineal feet of perch space, which will accommodate from 200 to 150 birds, depending on their age.

The question of the wire for the ends of the house probably needs a little more explanation than is contained in the bill of materials. A piece of wire 4 feet by 8 feet is provided for each end. This will extend up to the triangle caused by the roof. The bill of materials calls for another piece of wire 2 feet by 8½ feet. This piece is cut in two diagonally, and each piece will then fill in the triangle above the four-foot wire just mentioned.

BILL OF MATERIALS FOR OPEN AIR RANGE HOUSE

Front:

1 — 2″ x 2″ x 10′ for sill
5 — 2″ x 2″ x 12′ for posts, braces, and door
1 — 2″ x 2″ x 10′ for plate
1 — 2″ x 4″ x 8′ for perch support
1 — 3″ hasp
1 — pr. 3″ strap hinges
4 — ¾″ x 5″ bolts for securing front to ends
10 — lineal feet of 6′—1″ mesh poultry wire

End:

1 — 2″ x 2″ x 8′ for sill
2 — 2″ x 2″ x 12′ for posts and brace
1 — 2″ x 2″ x 10′ for plate
8 — lineal feet of 4′ — 1″ mesh poultry wire
8 — lineal feet of 2′ — 1″ mesh poultry wire

Back:

1 — 2″ x 2″ x 10′ for sill
1 — 2″ x 2″ x 12′ for posts
1 — 2″ x 2″ x 10′ for braces
1 — 2″ x 4″ x 10′ for perch support
4 — ¾″ x 5″ bolts for securing back to ends
10 — lineal feet of 4′ — 1″ mesh poultry wire

Roof:

3 — 2″ x 4″ x 10′ for rafters
6 — 1″ x 4″ x 10′ for roof cleats
150 — board feet of ¾″ x 4″ ceiling for sheathing
1¼ rolls (100 sq. feet each) of 3-play roofing paper

Perches:

8 — 2″ x 3″ x 8′ for perches

Nails:

2 lbs. 6d box for roof
2 lbs. 8d box for frame
½ lbs. 20d common for rafters
2 lbs. small staples

SUMMARY

Lumber:

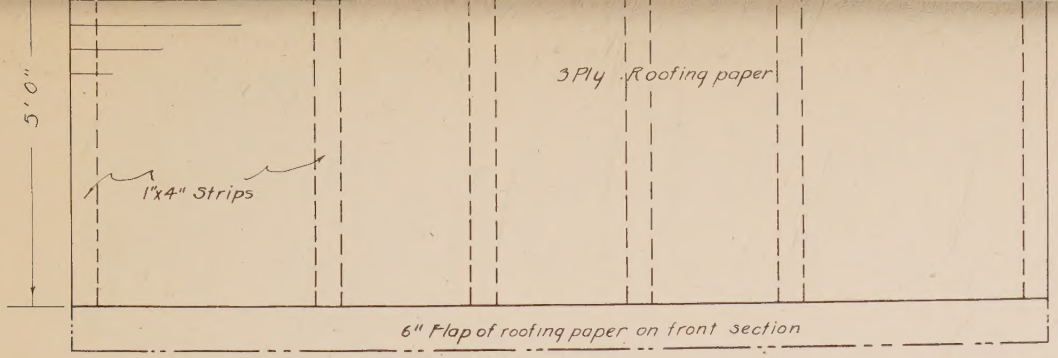
1 — 2″ x 4″ x 8′ S2S No. 1 common
4 — 2″ x 4″ x 10′ S2S No. 1 common
2 — 2″ x 2″ x 8′ rough No. 1 common
6 — 2″ x 2″ x 10′ rough No. 1 common
10 — 2″ x 2″ x 12′ rough No.1 common
8 — 2″ x 3″ x 8′ S4S No. 1 common
6 — 1″ x 4″ x 10′ S2S No. 1 common
150 — board ft. ¾″ x 4″ ceiling No. 3 common

Hardware:

8 — ¼″ x 5″ bolts
1 — 3″ hasp
1 — pr. 3″ strap hinges
10 — lineal feet of 6′ — 1″ mesh poultry wire
26 — lineal feet of 4′ — 1″ mesh poultry wire
8½ lineal feet 2′— 1″ mesh poultry wire
1¼ rolls (100 sq. ft. each) of 3-ply roofing paper

Nails:

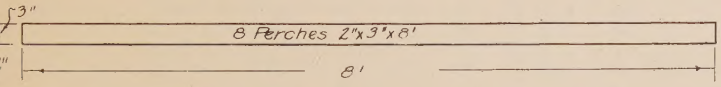
2 lbs. 6d box
2 lbs. 8d box
½ lbs. 20d common
2 lbs. small staples



ROOF SECTION

NOTES

Poultry wire is 1" mesh
3 Rafters
8 Perches
2 Roof sections
To fasten wall sections
togetheruse 1/4"x5" ϕ bolts



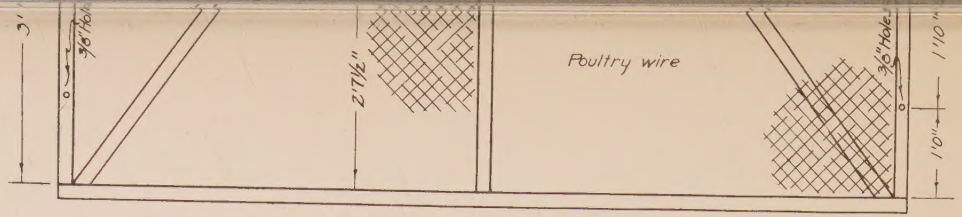
PERCH DETAIL

O. A. C.
EXPERIMENT STATION

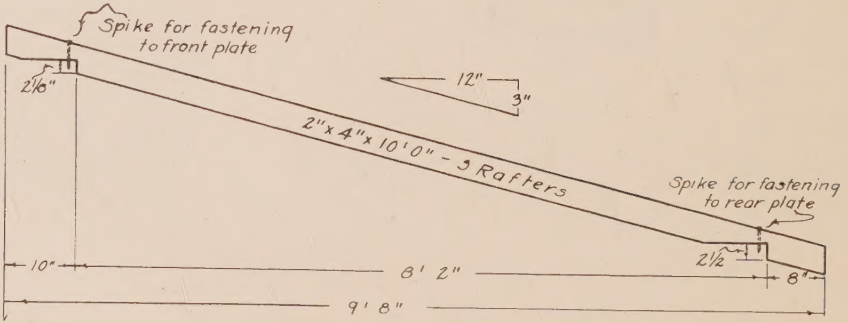
OPEN AIR RANGE HOUSE

Drawn by J. H. Peterson

12/28/23



ELEVATION- REAR SECTION



RAFTER DETAIL